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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,417	11/10/2005	Gareth David Huntley Shaw	050446PCTUS	3622

26285	7590	11/15/2007
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EXAMINER	
LEONARD, KERRY W	

ART UNIT	PAPER NUMBER
3676	

MAIL DATE	DELIVERY MODE
11/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,417	Applicant(s) SHAW ET AL.	
	Examiner Kerry W. Leonard	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17, 19-21, 23, 26, 28, 29, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17, 19-21, 26, 28, 29 and 31 is/are rejected.
- 7) ☒ Claim(s) 23 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 17, 19-21, 26, 28-29, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by PARSLEY (US 2004/0244973 A1).

With respect to claim 17, the reference discloses a plant for providing gas for downhole injection for pressure support in an oil reservoir for recovering of hydrocarbons and production of oxygenated hydrocarbons or higher hydrocarbons from natural gas, comprising: an air separation unit for production of an oxygen-rich fraction for supply to processes that require oxygen, and a nitrogen-rich fraction for injection; a reformer for conversion of a mixture of natural gas, water and oxygen or oxygen enriched air from the air separation unit into a synthesis gas comprising mainly H₂, CO, CO₂ and small amounts of methane in addition to any inert gas, such as nitrogen; a synthesis unit for conversion of the synthesis gas for synthesis of higher hydrocarbons; means for injecting gas into the reservoir; means for transferring nitrogen from the air

separation unit to the means for injecting gas; and means for transferring at least a part of a waste gas from the synthesis unit to the means for injecting gas, and a tail gas treatment unit for removing CO by a shift reaction and separation of hydrogen from the remaining tail gas (paragraphs 0016, 0025, 0037, and 0044). With respect to claim 19, the reference discloses further comprising means for transferring the remaining tail gas from the tail gas treatment unit to the means for injecting gas (paragraphs 0043 and 0044). With respect to the depending claims 20 and 21, the reference discloses that the synthesis unit comprises one or more once-through Fischer-Tropsch units for synthesis of higher hydrocarbons (paragraph 0037).

With respect to claim 26, the reference discloses a plant for providing gas for downhole injection for pressure support in an oil reservoir for recovering of hydrocarbons and production of oxygenated hydrocarbons higher hydrocarbons from natural gas, comprising: an air compression unit for production of compressed air for supply to processes that require air; a reformer for conversion of a mixture of natural gas, water and oxygen or oxygen-enriched air from the air separation unit into a synthesis gas comprising mainly N_2 , H_2 , CO, CO_2 and small amounts of methane; a synthesis unit for conversion of the synthesis gas for synthesis of higher hydrocarbons; means for injecting gas into the reservoir; and means for transferring nitrogen from the air separation unit to the means for injecting gas; means for transferring at least a part of the nitrogen rich waste gas from the synthesis unit to the means for injecting gas; and a tail gas treatment unit for removing CO by a shift reaction and separation of hydrogen from the

remaining tail gas (paragraphs 0016, 0037, 0025, and 0043-0044). With respect to claim 28, the reference further discloses means for transferring the remaining tail gas from the tail gas treatment unit to the means for injecting gas (paragraphs 0043-0044). With respect to claim 29, the reference discloses that the synthesis unit comprises one or more once-through Fischer-Tropsch units for synthesis of higher hydrocarbons (paragraph 0037). With respect to claim 31, the reference discloses that the synthesis unit comprises one or more once-through Fischer-Tropsch units for synthesis of higher hydrocarbons.

Allowable Subject Matter

3. Claims 23 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments, filed 6/7/07 with respect to the rejections in view of OLSVIK (US 2006/0231455 A1), have been fully considered and are persuasive. The rejections have been withdrawn.

5. Applicant's arguments filed 6/7/07 with respect to the rejections in view of PARSLEY et al. (US 2004/0244973 A1) have been fully considered but they are not persuasive.

The applicant argues that the PARSLEY reference does not disclose a tail gas treatment unit (see page 5 of response). However, the examiner would like

to indicated that in paragraph 0044 of the reference, it is stated that the "oxygen depleted stream is mixed with carbon dioxide". The reference further states that the carbon dioxide is produced during the synthesis of liquid hydrocarbons from the synthesis gas, but also can be obtained by burning waste streams of the Fischer-Tropsch off gas. The water-gas shift reaction, $\text{CO} + \text{H}_2\text{O} \leftrightarrow \text{CO}_2 + \text{H}_2$, can occur by burning the CO with steam and generating H₂, thereby separating the H₂ from the CO and forming CO₂ to be injected downhole (see paragraphs 0043 and 0044).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerry W. Leonard whose telephone number is 571-272-8133. The examiner can normally be reached on Monday-Friday, 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

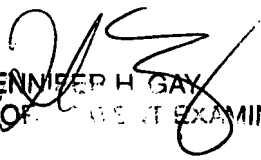
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KWE

Nov. 13, 2007


JENNIFER H. GAY
SUPERVISOR, PATENT EXAMINER